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ABSTRACT

This paper describes the IFLA (International Federation of Library Associations and Institutions) guidelines for librarians charged with customizing OPAC (online public access catalog) software and vendors and producers of this software. The guidelines are intended to apply to all types of catalog, including World Wide Web-based catalogs, GUI (graphical user interface)-based interfaces, and Z39.50-Web interfaces. The focus is on the display of cataloging information (as opposed to circulation, serials check-in, fund accounting, acquisitions, or bindery information). The intent is to recommend a standard set of display defaults, defined as features that should be provided for users who have not selected other options, including users who want to begin searching without much instruction. The guidelines are divided into principles (general statements of the goals of the guidelines) and recommendations. The recommendations are organized based on the four main types of searches that users conduct in library catalogs: (1) for the works of a particular author or other creator; (2) for a particular work; (3) for works on a particular subject or in a particular form or genre; and (4) for works that take a particular disciplinary approach. Several controversies related to OPAC displays are also addressed. (MES)

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1

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Guidelines for OPAC displays

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Paper

Background

Several studies on OPACs have been made since the early 1980s. However, OPAC development has been governed by system designers, bibliographic network librarians, public service librarians, and technical services librarians, but not necessarily according to user needs. Existing OPACs demonstrate differences, for example, in the range and complexity of their functional features, terminology and help facilities. While many libraries have already established their own OPACs, there is a need to bring together in the form of guidelines or recommendations a corpus of good practice to assist libraries to design or re-design their OPACs.

Audience

The history of OPACs has been one of movement from centralized systems designed and controlled by system designers and programmers, to more and more distributed and customizable systems. These more customizable systems put more of the burden for effective OPAC design on the shoulders of librarians in the libraries that purchase these systems from vendors. Even so, there are still a number of areas in which bad system design prevents librarians from being able to achieve optimal customization. Thus, the audience for these guidelines should be both librarians charged with customizing OPAC software, and vendors and producers of this software.

History of the Project

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2

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In 1997 at the meeting of the International Federation of Library Associations and Institutions (IFLA) in Copenhagen, the IFLA Task Force on Guidelines for OPAC Displays was constituted. It was agreed that members of the Task Force would be drawn from the Section on Bibliography, the Section on Cataloguing and the Section on Classification and Indexing from the Division of Bibliographic Control, and from the Section on Information Technology. Commentators were invited to participate from a number of sections and roundtables.

The aim of the project was to make recommendations for good practice in OPAC displays. The design of World Wide Web sites and other multimedia products, GUI-based interfaces and Z39.50-web interfaces was to be taken into account.

Scope

As mentioned above, the guidelines are intended to apply to all types of catalogue, including Web-based catalogues, GUI-based interfaces, and Z39.50-web interfaces. The focus of the guidelines is on the display of cataloguing information (as opposed to circulation, serials check-in, fund accounting, acquisitions, or bindery information). However, some general statements are made concerning the value of displaying to users information that is drawn from these other types of records. The guidelines do not attempt to cover HELP screens, searching methods, or command names and functions. Thus, the guidelines do not directly address the difference between menu-mode access (so common now in GUI and Web interfaces) vs. command-mode access (often completely unavailable in GUI and Web interfaces). However, note that in menu-mode access, the user often has to go through many more screens to attain results than in command-mode access, and each of these screens constitutes a display.

The intent is to recommend a standard set of display defaults, defined as features that should be provided for users who have not selected other options, including users who want to begin searching right away without much instruction. It is not the intent to restrict the creativity of system designers who want to build in further options to offer to advanced users (beyond the defaults), advanced users being those people who are willing to put some time into learning how to use the system in more sophisticated and complex ways.

The Task Force is aware of the fact that many existing systems are not capable of following all of the recommendations in this document. We hope that existing systems will attempt to work toward the implementation of the guidelines as they develop new versions of their software in the future.

Organization

The guidelines are divided into principles and recommendations. The principles are general statements of the goals of the guidelines, and are intended for use whenever situations arise that are not covered by the more specific recommendations. The principles are intended to provide a context and a rationale for the recommendations. The recommendations are meant to be a more detailed expansion of the principles into actual practice. In a sense, you could say that the principles provide the 'why' and the recommendations provide the 'how.'

The order of the principles is based roughly on generality, with the more general principles first, and the more specific ones last; the principles concerning display of headings tend to precede those that concern display of bibliographic records. The principles could have been organized in a number of different ways. When it was attempted to classify them, it was found that it was very difficult to design a set of categories that was not riddled with cross-classification. However, it is recognized that under various circumstances it might be useful to group several together in different ways, depending on the nature of one's immediate information needs.

The recommendations are organized based on the four main types of search that users conduct in library catalogues:

1. A search for the works of a particular author, composer, choreographer or other creator, or of a particular corporate body.
2. A search for a particular work.
3. A search for works on a particular subject or in a particular form or genre.
4. A search for works that take a particular disciplinary approach.

It is felt that different displays are needed for each of these types of search. The recommendations begin with some general recommendations that apply to all types of search, and then proceed to give more specific recommendations that apply only to each particular type.

Within each of these four main types of search, the guidelines are organized based on the types of searching that might be available. We have identified at least four types of searching in existing online public access catalogues:

> 'keyword-within-heading searching,' in which the user types in keywords that the system matches against headings without regard to order
>
> 'left-to-right-exact-beginning searching,' in which the user types in a string of characters that the system matches against headings in the exact order in which the user typed them in, with the first word of the search being matched against the first word of the heading
>
> 'phrase searching,' in which the user types in a string of characters that the system matches against headings or other fields in bibliographic records in the exact order in which the user typed them in, but without regard for the first words of fields or headings
>
> 'keyword-within-record searching,' in which the user types in keywords that the system matches without regard to order against all words in a single bibliographic record, or all words in a group of fields within a single bibliographic record, such as all subject fields or all title fields

These guidelines are not intended to address the question of the ideal types of searching that should be provided in OPACs. These types of searching are defined here only because the displays that are available to the user often depend on the type of searching that resulted in the displays. For example, when any type of keyword-within-record searching has been done, headings displays are not possible, since the search could easily match a field which is not a heading at all, or it could match several different heading fields.

Note also that even though these guidelines do not address searching directly, we do advise that searching decisions be made in conjunction with display decisions and vice versa. We want to avoid the situation in which a piece of data that has been made searchable does not appear in the resultant display.

Principles

Principle 1, Objects of the Catalogue
Principle 2, The Headings Principle
Principle 3, Assume Large Retrievals
Principle 4, Display What Was Searched
Principle 5, Emphasize Author, Work or Subject Sought in Resultant Display
Principle 6, Treat Display, Sorting, and Indexing as Separate and Independent Functions
Principle 7, Integrate Cross References in Displays
Principle 8, Respect Sorting Elements

Principle 9, Display Subfields in Order Set by Cataloguer
Principle 10, Respect Filing Indicators and Symbols
Principle 11, Provide Compact Summary Displays
Principle 12, Provide Logical Compression
Principle 13, Provide Logical Sorting
Principle 14, Maintain an Attachment Between a Heading and the Bibliographic Records that Contain it
Principle 15, Do Not Truncate Headings
Principle 16, Display Works About an Author or Work, or Related to a Particular work
Principle 17, Display Works About a Particular Genre or Form
Principle 18, Display of Serial Works that Have Changed Title
Principle 19, Display the Hierarchical Relationship Between Headings and Their Subject Subdivisions
Principle 20, Display the Hierarchical Relationship Between a Corporate Body and Its Corporate Subdivisions
Principle 21, Display the Hierarchical Relationship Between Work and Its Parts
Principle 22, Display the Hierarchical Relationship Between a Classification Number and the Entire Classification
Principle 23, Avoid Repetition
Principle 24, Highlight Terms Matched
Principle 25, ISBD is an International Display Standard
Principle 26, Make the Default Single Record Display the Full Display
Principle 27, Design the "Look and Feel" of the OPAC for its Primary Audience
Principle 28, Allow Display of the MARC Record
Principle 29, Do Not Duplicate Records for Display Purposes
Principle 30, Support International Standards for the Display of Diacritics, Special Characters, non-Roman Scripts, and Bi-Directional Scripts

International standards followed

Paris Principles[1]
ISBDs[2]
AACR2R[3]
Functional requirements for bibliographic records[4]
MARC21[5]
UNIMARC[6]
Guidelines for authority and reference entries[7]
Guidelines for subject authority and reference entries[8]

Standards lacking

Display of 856 (universal resource locator information)

As yet, there are no display standards in place for the display of the fairly complex information to be found in MARC21 856 fields (universal resource locator information). MARC21 itself does not call for particular display constants in this field, and AACR2R does not address the need for adequate display of this information.

Display of LCSH subdivision authority records

The Library of Congress has only recently begun to distribute authority records for free-floating subdivisions (in February of 1999; see: http://lcweb.loc.gov/catdir/cpso/subdauth.html). As yet, standards for display of these records have not yet been developed.

Display of examples of and works about a particular form or genre

Over time, a number of different LCSH practices have grown up for creating pairs of headings to represent examples of a particular form or genre as opposed to works about a particular form or genre.

Patterns in use:

genre/form heading singular (about)/plural (examples of) (Example: Opera/Operas); headings linked by means of scope notes, as well as see reference from Operas--History and criticism to Opera.

genre/form heading (examples of) with subdivision (works about) (Example: Gangster films--History and criticism); no explicit link made; users expected to notice free-floating subdivision under the heading itself

genre/form heading used for both examples of and works about (Example: Computer war games)

Without standardization in practice, it is difficult to recommend effective displays for these heading pairs.

Controversies

Should the default subarrangement under subject be by main entry or date?

In science and technology libraries in which editions tend to be of the successive type such that most users are likely to be interested only in the latest edition, some people might think that default subarrangement under date would be preferable. This subarrangement works against the objects of the catalog, however, and should not be followed in general libraries or humanities libraries. In either case, the subarrangement not chosen as the default should always be available as an option for users to apply to the results of their search.

Should the default single-record display be abbreviated to certain fields only?

This is recommended even for children's libraries (where it is common practice to let computers shorten displays arbitrarily). The problem is that MARC formats do not let the cataloguer label notes as either 'IMPORTANT--always display, even to children,' or 'Need not display to children.' Therefore, it is strongly recommended that children's libraries and other types of libraries that desire a record that is not as full as those used in large research libraries (from which most shared cataloguing is derived) utilize human catalogue editors to edit their records to meet their specifications, rather than relying on the arbitrary dumping of fields by a computer algorithm. Certainly, a short display should be an option in any such library (to be selected by the user for either individual record display, or for setting for the entire OPAC session), but it is dangerous to impose it on users as a default, as much important information (important even to children and their parents!) is found in fields that are often left out of short displays.

Should the principle of sorting elements be followed?

Our recommendation is that when headings are segmented into sorting elements, headings displays should be sorted first on the first element of the heading; the second element of the heading should be used only to subarrange headings that begin with the same first element. Examples of segmented headings include: a) a name or subject heading with subdivisions; b) a subordinate corporate body entered under a parent body; c) a uniform title for a serial with a qualifier; or d) a part of a work entered under the name of the work as a whole.

EXAMPLES:

Displays following the principle of sorting elements contrasted with those that do not; note that in each of these examples, in a catalog for a library of any size, there would be many more headings than depicted in the example separating headings that users need to view together. Also, note that in the displays below it is assumed that it is possible to compress all of the editions of a particular work (such as Homer's Iliad) to a single line in the initial display, using the uniform title, with editions being displayed only on selection of that line. Many existing systems cannot currently do this.

Example 1, Display of headings retrieved on a keyword search of Homer

1A BAD (Display that does not follow the principle of sorting elements):

Homer, Anne.
Homer. Carmina minora.
Homer, Davis A.
Homer-Dixon, Thomas F.
Homer, Frederic A.
Homer. Iliad.
Homer, Joy, 1915-
Homer. Odyssey.
Homer, Winslow, 1836-1910.

1B BETTER (Display following the principle of sorting elements):

Homer.
    Carmina minora.
    Iliad.
    Odyssey.
Homer, Anne.
Homer, Davis A.
Homer, Frederic A.
Homer, Joy, 1915-
Homer, Winslow, 1836-1910.
Homer-Dixon, Thomas F.

Example 2, Display of serial titles.

2B BAD (Display that does not follow the principle of sorting elements):

1. Health advocate.
2. Health alert.
3. Health (Canberra, Australia)
4. Health care costs.
5. Health care management review.
6. Health (Chicago, Ill.)
7. Health cost review.
8. Health (New York, N.Y. : 1981)
9. Health news.
10. Health reports.
11. Health (San Francisco, Calif.)

2B BETTER (Display following the principle of sorting elements):

1. Health (Canberra, A.C.T.)
2. Health (Chicago, Ill.)
3. Health (New York, N.Y. : 1981)

4. Health (San Francisco, Calif.)
5. Health advocate.
6. Health alert.
7. Health care costs.
8. Health care management review.
9. Health cost review.
10. Health news.
11. Health reports.

Example 3, Display of subject headings

3B BAD (Display not using sorting elements):

Line no.	Term:	No. of records: [available for selection]
1.	Power lawn mowers	1
2.	Power (Mechanics)	102
3.	Power (Mechanics)--Congresses	108
4.	Power (Mechanics)--Dictionaries	8
5.	Power of attorney	15
6.	Power (Philosophy)	300
7.	Power (Philosophy)--History	4
8.	Power presses	9
9.	Power (Social sciences)	226

3B BETTER (Display using sorting elements):

Line no.	Term:	No. of records: [available for selection]
1.	Power (Mechanics)	102
2.	Power (Mechanics)--Congresses	108
3.	Power (Mechanics)--Dictionaries	8
4.	Power (Philosophy)	300
5.	Power (Philosophy)--History	4
6.	Power (Social sciences)	226
7.	Power lawn mowers	1
8.	Power of attorney	15
9.	Power presses	9

Should we try to provide catalog users with serendipity by displaying works about when their search is for a particular work or for works by a particular author?

The guidelines do recommend this, on the assumption that it is better to show people as many pathways into the catalogue as possible. However, if this is done, it is imperative that the two categories be differentiated, so that users can easily choose either to view works about or not to view them, depending on their needs and interests at the time.

Should we try to provide location and format information on initial summary displays of bibliographic records in an environment in which more and more different locations and formats are being represented by one bibliographic record?

When it is possible to provide location and format information on summary displays, it can be helpful to do so for users who have a fairly good idea of what they want and just want to jot down some call numbers quickly. This approach saves them having to request quite so many different displays. However, the more complex the locations and formats that can be represented by one bibliographic record, the more difficult it becomes to summarize all of this information concisely and clearly in a summary display that may summarize thousands of retrieved records. If, for example, some of the holdings on a particular record are in the stacks, located using call numbers, some are in remote storage, located using barcodes, and some are electronic resources available over the Internet, located using URLs, how do you convey all of that in a line or two in a summary display that must also identify the particular manifestation of the particular expression of the particular work that the display line represents?

The value of work headings

In countries and libraries that employ work headings (sometimes known as main entries), it is possible to carry out the second object of the catalog in OPAC displays that list in one group the manifestations of expressions of a particular work, list in a second group the works related to that work, and list in a third group the works about the work in question. It also enables elegant compressed displays of all of the records representing that work in various ways, so that multiple-edition works can be quickly and concisely displayed to users interested in them, and so that users can navigate the display efficiently, quickly making their own decisions about which of the above categories of items interest them, and which do not. These kinds of displays of the work can be made available to users who have arrived at that work through any kind of search, whether it be an author search, a work search, a subject search or a search of the classification.

Unfortunately, even in countries and libraries that employ work headings, many catalogues are in disarray because inadequate authority control has been applied to works. The option of employing uniform titles to create work headings has not been exercised on all kinds of works that exist in multiple manifestations of multiple expressions. For example, application may have been limited to music and law materials. It is highly possible that a chicken and egg situation exists here. System design heretofore has not supported the use of work headings to make searching easier for OPAC users, so cataloguing librarians and administrators have lost sight of the value of work headings, and do not devote resources to maintaining them. If systems were to support the superior work displays recommended in this document, flaws in existing catalogues would be easier to spot and fix over time.

How much can be generalized internationally?

Many countries and libraries do not formally designate work headings. Many countries and libraries do not use subject headings; among those that do, many do not use systems that employ subdivisions or that have a syndetic structure of see and see also references. Many countries and libraries do not assign uniform titles with qualifiers. The approach we have taken is to describe the ideal displays for countries and/or libraries that do these things, but to footnote with warnings in cases where it is known that a practice is not universal.

ENDNOTES

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